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## A LETTER

TO THE

POSTMASTER-GENERAL,

REVIEWING THE RECOMMENDATIONS OF HIS ANNUAL REPORT  
IN FAVOR OF

## A POSTAL TELEGRAPH

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# A LETTER

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REVIEWING THE RECOMMENDATIONS OF HIS ANNUAL REPORT

IN FAVOR OF

A POSTAL TELEGRAPH.

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EXECUTIVE OFFICE,  
WESTERN UNION TELEGRAPH COMPANY,  
NEW YORK, December 6, 1873.

*The Honorable*  
JOHN A. J. CRESWELL,  
*Postmaster-General.*

SIR.—I have before me an official copy of the Report of the Postmaster-General for the fiscal year ending June 30, 1873, which contains statements concerning the policy and management of the Western Union Telegraph Company, including allusions to myself, which are so erroneous, unjust and personal, that it seems incredible they should have been made by a Cabinet Minister in an official communication to the President for transmission to the Congress of the United States.

That it is an unusual proceeding for a private citizen to publicly address a communication to a Cabinet Minister upon the subject of an official report is admitted. On the other hand, I believe it is equally unprecedented for a Cabinet officer, in a public report to the President, to select for official animadversion a business lawfully prosecuted, or a citizen who has infringed no law; and therefore, if any justification is needed, it will be found in the extraordinary character of the paper to which this is a reply. It seems due to the owners of property whose value may be impaired by official misrepresentation, to the public who are largely interested in the proper conduct of the telegraph business, and also to the managers of a corporation who have been held up to public reprobation by the head of one of the most important Executive Departments of the Government, that his errors should be plainly pointed out, and the facts fully and fairly stated.

Before proceeding to do this it seems proper to give a concise statement of the action of the Government towards the telegraph, from the establishment of the latter to the present time.

## WHAT THE GOVERNMENT HAS DONE FOR THE TELEGRAPH.

The system of electric telegraph, which is now almost universally used throughout the world, was first established in the United States nearly thirty years ago. Its inventor and founder was a citizen of the United States, and the first public attempt to demonstrate its utility was upon a line constructed by Professor Morse and Ezra Cornell, between the cities of Washington and Baltimore. To enable this experiment to be made Congress appropriated, with much reluctance, the sum of \$30,000. Many of those who voted for this appropriation were influenced more by the importunities of the inventor and his friends than by their convictions that the experiment would justify their action. Not a few treated the subject with ridicule, and some proposed, and compelled formal consideration of the proposition, that a part of the appropriation should be expended in Mesmeric experiments, and one facetious member moved to include Millerism also. About the same time an offer was made to the Government by Professor Morse to sell his patents, and all the benefits to be derived therefrom, for \$100,000. But the offer was not accepted—indeed it was scarcely entertained—and the experimental line, after accomplishing all that Morse claimed or expected, was abandoned by the Government upon the recommendation of the Hon. Cave Johnson, then Postmaster-General, who said, in his report upon the subject:

“That the operation of the telegraph between Washington and Baltimore had not satisfied him that under any rate of postage that could be adopted its revenues could be made equal to its expenditures.”

This is a brief and simple history of the first attempt to induce our Government to lend its aid to establish, extend and develop the business which it is now proposed either to wrest from its owners for a nominal consideration, or destroy in value by Governmental competition.

During the twenty-two years from 1844 to 1866 the only action solicited from or taken by Congress relating to the telegraph was to grant permission to build and maintain lines across the public domain, in order to establish connection with

the Pacific coast and intermediate stations. One of these bills authorized the Secretary of the Treasury to encourage the building of such a line by contracting in advance to pay \$40,000 a year for ten years after its completion for the unrestricted use of said line by the Government. This was, in effect, merely a pledge that the Government business for ten years should amount to the sum of \$40,000 annually. No provision was made for the payment of any excess above that sum, and no excess was ever paid for. It was a condition of this contract that the charge to the public for messages between the Missouri River and the Pacific Ocean should be restricted to three dollars. If all the business sent for the Government on that line had been paid for at that rate, it is believed that the companies would have received a much larger sum than that named in the contract. In this connection it seems proper to call attention to the striking contrast between the indifference which our Government has manifested toward the telegraph and the liberal aid and encouragement which it has extended to the railroads.

#### WHAT THE GOVERNMENT HAS DONE FOR RAILROADS.

In the Report of the Secretary of the Interior for the last fiscal year the following railroad companies are represented to be indebted to the United States for bonds issued to aid in their construction in the amounts set opposite to each :

Union Pacific.....	\$27,236,512
Central Pacific.....	27,855,680
Central Branch .....	1,600,000
Kansas Pacific.....	6,303,000
Sioux City and Pacific.....	1,628,320
 Total.....	 \$64,623,512

The value of the public lands granted to the companies above named, and others to which bonds were not issued, is probably many times the amount above stated. Hundreds of millions of Government aid to Railroads, and but thirty thousand to the Telegraph !

#### CONGRESS AND THE TELEGRAPH.

At the session of Congress in 1866 a bill was introduced in the Senate to incorporate and confer special privileges upon the

National Telegraph Company. This bill did not pass, but, pending its consideration, the Senate adopted a resolution requesting the Postmaster-General, Hon. William Dennison, to consider and report upon the expediency of uniting the Postal and Telegraph systems. This report concludes with the following:

“As the result of that investigation under the resolution of the Senate, I am of the opinion that it will not be wise for the Government to inaugurate the proposed system of telegraph as a part of the Postal service—not only because of its doubtful financial success, but, also, its questionable feasibility under our political system.”

The discussion of the subject at that session resulted in the passage of a general law, which authorized telegraph companies duly incorporated under the laws of the several States, to construct and operate lines in all the States and Territories, upon any military or post roads, and to cross navigable waters. The right of telegraph companies to enjoy these privileges was conditioned upon their assenting to the provisions of the bill—among which were the following:

1. That the Postmaster-General should fix annually the rates for Government messages, which messages should have priority over all others.
2. That the United States, at any time after the expiration of five years from the passage of the act, might purchase all the telegraph lines, property and effects of any or all of said companies at an appraised value, to be ascertained by five competent disinterested persons—two to be selected by the Postmaster-General, two by the companies interested, and one by the four so previously selected. All of the principal telegraph companies in the United States have filed their acceptance of the terms of this act, and are, therefore, entitled to enjoy its benefits.

After due consideration of the project of a Postal Telegraph, the passage of such an act by Congress, as a substitute for a bill proposing to confer special privileges upon a corporation which they were asked to create, and the subsequent acceptance of its

terms by the companies then engaged in carrying on the business, was understood by the latter as indicating the adoption of a fixed policy by Congress, and as constituting a compact between the Government and the companies, equally binding in honor upon both parties as if made between individuals and executed under seal.

The contrast between the treatment by Congress of the telegraph and other interests is also noticeable in the terms of this bill. The privileges which it confers upon the telegraph cost the Government nothing; and yet they were conditioned upon the concession by the telegraph, first, of the right of a Government official to fix the rate of charges on Government messages, and the requirement that such messages should have priority over all other business, regardless of the loss and damage which the companies might suffer thereby; and, second, that the Government should have the right to purchase the property of the telegraph companies, and to prohibit them thereafter from carrying on the business, although the compensation to be offered might not be satisfactory to the owners. On the other hand, with but few and unimportant exceptions the grants made by the Government to railroad companies were without restrictions, while the right to cross the public lands with the telegraph line to the Pacific coast was granted upon the condition that \$3.00 should be the maximum charge for a message thereon. The highest charges in the United States for railroad fares and freights are now made by those companies which Congress has aided in an amount nearly or quite equal to the actual cost of their construction. These charges have not been materially reduced in several years, while the present telegraph rates are now only about one half those charged six years ago.

During the third session of the Fortieth Congress three bills relating to the telegraph were presented to the House, and by it referred to the Committee on Post-offices and Post-roads.

The first, offered by Mr. Washburne, of Illinois, provided for the construction by the Government of a line between Washington, Baltimore, Philadelphia and New York, to be connected with the Post-offices in those cities and with such intermediate stations as might be designated by the Postmaster-General. The rate fixed by the bill was fifteen cents for a message of ten words, exclusive of date, address and signature, but including delivery.

The second was a bill in favor of the scheme which has been advocated for several years by Mr. Hubbard, the details of which it is unnecessary to state in this connection.

The third provided for the construction of a line between Boston, Washington and intermediate cities, by the parties named therein under the direction of the Postmaster-General. This bill was similar in principle, although differing materially in details to that proposing to incorporate the National Telegraph Company hereinbefore referred to.

The Committee having these bills in charge held numerous sessions, at which parties who favored their passage, and those opposed thereto, were afforded ample opportunity to discuss their merits. After full consideration they decided unanimously to report against their passage. The opinions of the Committee, as set forth in this report (No. 32, Fortieth Congress, Third Session,) appear to have been accepted by the House to which it was presented, since no further action was taken on that subject during the session.

The following extracts from the report are especially applicable to the present case. Referring to the law of 1866, the Committee say:

“ Is there not, in view of the relations thus voluntarily established, a solemn compact between the Government and these corporations, which would be violated by any legislation tending to depreciate the value of their property before the right to take it at a valuation accrues. \* \* \* \* \*

“ Would any of these companies have accepted the terms of the act, and bound itself by its obligations on any other understanding than that the Government, with whom it contracted, should do nothing to violate the spirit of the compact so long as the obligations of it continued. There is not within the knowledge of the Committee any precedent to justify the Government in entering into competition with its own citizens, exercising franchises secured to them by legislative authority, and to the injury of private property, without providing a just measure of compensation. \* \* \* \*

"Two systems of telegraphs—one public and one private—cannot operate side by side with success to either or with benefit to the public. The functions of the Government are necessarily exclusive, and whenever it formally undertakes any service, as proper to be exercised by it, private parties must be excluded from the performance of the same service."

At the second session of the Forty-first Congress, Mr. C. C. Washburn, of Wisconsin, introduced a bill in the House which provided for the purchase of all the telegraph lines in the country, at their appraised value, substantially as provided by the act of 1866. This bill was referred to a Select Committee, of which its author was made Chairman; and the bill known as the Hubbard bill, which had been presented again at that session, was referred to the same Committee. This Committee, which was composed of some of the ablest members of the House, gave much time to the consideration of the subject, and to hearing parties who appeared both for and against the bills. And although they permitted a report by the Chairman in favor of the bill introduced by him, and another in favor of the bill of Mr. Hubbard, to be presented to the House, so as to enable them to be printed, together with the proceedings before the Committee, both reports were recommitted, and no further action thereon was taken either by the Committee or by the House at that session.

At the same session the Hubbard bill was introduced in the Senate, and referred to the Standing Committee on Post-offices and Post-roads. That Committee, although they had given the opponents of the bill but one opportunity to be heard upon it, and that limited to about fifteen minutes, subsequently reported it favorably to the Senate. After a brief discussion there its further consideration was indefinitely postponed.

The preceding statements contain all that is material concerning the action of Congress in respect to the telegraph, and to proposals for connecting it with the Postal service, from the appropriation of \$30,000 to enable the first experiment to be made, down to the last session. In December, 1872, so much of the annual report of the Postmaster-General for the fiscal year

ending June 30, 1872, as related to the telegraph, was referred by the House to the standing Committee on Appropriations.

In that report the subject was discussed at considerable length, although with great unfairness to the telegraph companies. The Postmaster-General recommended that the lines of some or all of the companies should be purchased under the provisions of the act of July 24, 1866, and placed under control of the Post-office Department.

Concerning the project for the incorporation of the Postal Telegraph Company, known as the Hubbard scheme, the Postmaster-General says:

“ I am decidedly of opinion that if the people interested require a Postal Telegraph, it should be entirely in the hands of the Government. If, on the contrary, a Postal Telegraph is not so demanded, then the Government should not favor one private company to the exclusion of another, *nor should it in anywise enter into competition with private enterprise.*”

The Committee on Appropriations held a special evening session for the consideration of the recommendations made in this report, which was attended by representatives from all the principal telegraph companies in the country, and also by the Postmaster-General and other Government officials. The statements contained in the report were thoroughly discussed and its recommendations fully considered. It is not unfair to say that the facts and arguments submitted by the representatives of the telegraph companies completely refuted the most important statements made by the Postmaster-General, and on which his conclusions and recommendations were based. It is not surprising, therefore, that no further action on the subject, either by the Committee or by the House, was taken at that session.

#### REPORT OF THE POST-MASTER GENERAL FOR 1873.

I propose now to consider the report of the Postmaster-General for the last fiscal year. This document differs in several particulars from every other official paper on this subject. Although in the discussion upon the first appropriation

the proposal to establish the telegraph, as a means of communication between distant stations, was spoken of by some in terms of derision, and although it was deemed for many years—if not unworthy of Congressional notice—as having small claim to Congressional favor, it has not been publicly assailed in an official document by any other prominent officer of the Government, nor has its property been depreciated, its policy and management disparaged, or its officers invidiously mentioned by name.

The Postmaster-General has by law no jurisdiction over the Telegraph, except to fix the rates annually for Government messages. The present incumbent of that office has never been requested by Congress to give them any information or opinions on the subject; yet, in view of the fact that the Government has secured the right to purchase all the telegraph lines in the country, no objection can be made to the discussion by him of the question of connecting the telegraph with the postal service. I submit, however, that in any such discussion concerning private property and persons, the former is entitled to be treated with common justice, and the latter with common civility.

The report of the Postmaster-General, now before me, in the portion which treats of the telegraph, begins with a reference to certain statements made in his report of the preceding year. These statements contained estimates of the original cost, and also the cost of duplicating all the telegraph lines and apparatus in use in the United States. The present report then proceeds:

“There is no need of repeating those reasons or estimates. I desire, however, to express my full confidence in the soundness of the former and the approximate correctness of the latter, notwithstanding the efforts which have been made to invalidate them.”

THE POSTMASTER-GENERAL ESTIMATES THE VALUE OF ALL  
THE TELEGRAPH PROPERTY IN THE COUNTRY  
AT \$11,880,000.

The estimates referred to in this extract, and concerning the soundness of which “full confidence” is now expressed, were

these: *First*, that the entire cost of all the lines in the country, including patents, was *much less* than \$10,000,000; and, *second*, that the cost of a new system, equal in extent to the present, would be \$11,880,000.

There are no data accessible which show, even approximately, what has been expended in the extension of telegraph lines during the last thirty years; but at the time these statements were made the property of telegraph companies was worth, in the market, not less than \$50,000,000. The only witness whose estimate was appended to the report, expressed the opinion that the existing lines could be duplicated for about \$18,250,000, provided the wire could be imported free of duty. But, as the Government has required the companies to pay duty, either directly to the Treasury on what they have imported, or indirectly on what they have purchased at home, it will hardly be deemed reasonable to leave this item out of the account. Adding it to the estimate of the witness, the total would be over \$20,000,000.

#### A SOLITARY WITNESS.

It appears, then, that the solitary witness called by the Postmaster-General to testify as to the cost of duplicating the present system, named an amount a hundred per cent. greater than that stated in the report. The witness had never constructed but one telegraph line, and that was for the use of the fire department of a large city. For that line of 80 miles of poles and 625 miles of wire he charged and was paid \$850,000. Comparing this charge with his estimate made for the Postmaster-General, in proportion to the number of miles of wire used, the telegraph lines in the United States would cost more than \$200,000,000. But on the basis of the number of miles of poles, the cost would be nearly \$800,000,000.

#### OFFICIAL DEPRECIATION OF PROPERTY WHICH THE GOVERNMENT HAS INDUCED THE OWNERS TO AGREE TO SELL.

In the face of these facts, clearly established before the Committee on Appropriations only one year ago, the Postmaster-General, who is not presumed to have any practical knowledge of the subject, now expresses "full confidence" in the correct-

ess of estimates which were not then, and have not been since sustained by a particle of evidence. It would seem, for other reasons than those of the Postmaster-General, that "there is no need of repeating those estimates."

The Government has the right to buy the property of the company thus assailed, and the utterance of official opinions calculated to prejudice the public mind as to its value, looks like an attempt to forestall the award of the arbitrators, and to compel the owners to accept a sum less than that to which they consider themselves entitled, rather than take the risk of inciting greater official hostility. The injustice of such a proceeding will be apparent to any one who examines the facts.

The report proceeds as follows:

#### UNFOUNDED CHARGES.

"One fact is conspicuous and most significant, and that is that the opposition to the postal telegraph comes almost entirely from the telegraph companies and those directly interested with them in sustaining, their monopoly.

"Every intelligent, disinterested observer, who has seen the working of the Government systems abroad, gives them the decided preference."

These statements are unjust both to the telegraph companies and to the public. The opposition made by the companies to the various postal telegraph schemes has been mainly confined to the refutation of misstatements concerning the value of their property and the comparative cost of carrying on the business in this and other countries. The press are almost unanimously opposed to it, and there is no evidence that even a respectable minority of the people desire its assumption by the Government.

The report further proceeds to say:

"Under the present management the use of the telegraph by the masses of the people is almost prohibited by reason of arbitrary rates, unnecessarily high charges, and a want of facilities."

After referring to a statement made by the President of the Western Union Company before the House Committee on Appropriations last winter, the report proceeds:

"It may, however, be regarded as settled, that while under the control of private companies, whose chief object is to make a profit for their stockholders, and whose skill and labor are expended in efforts to advance the price of their stock, and to enforce the highest rates to which the people can be made to submit, the telegraph will never become a general medium of correspondence."

#### COMPARATIVE USE OF THE TELEGRAPH IN THE UNITED STATES AND EUROPE.

The people of the United States use the telegraph as freely as those of other countries. They are now sending messages at the rate of more than 20,000,000 per annum, the Western Union Company alone having sent about 1,500,000 in the month of September last, not including a press service greater in the aggregate than that performed in the same time by all the other telegraphs in the world. It appears by the tables appended to the report of the Postmaster-General that in 1872 Great Britain sent 16,500,000 messages; France in 1871, 5,200,000; Spain in 1872, 1,100,000; Belgium in 1872, 1,900,000; Austria in 1871, 3,000,000; Germany in 1872, 8,200,000; Italy in 1871, 2,600,000; Russia in 1872, 2,800,000; Switzerland in 1872, 1,750,000.

The tables also show that 44,337,702 interior messages were sent for 65,191,306 francs—being an average of about one and a half francs per message. But that for 6,274,637 international messages—that is, messages sent from one country to another—the receipts were 27,851,903 francs—being an average of nearly four and a half francs per message.

#### CHARGE OF ARBITRARY RATES REFUTED.

What is meant by "arbitrary rates" it is not easy to understand. The right of the companies to fix the rates except for Government messages cannot be questioned. The present

tariff system is based on air line distances between all stations, regardless of the actual distances over which messages are necessarily sent ; and the rate for like distances is the same in the Eastern, Northern, Western and Southern sections. There are a few rates, most of them on or near the direct route between Boston and Washington, that are below the scale rate in other sections. As to these rates being "high charges," the fact can be established that they are relatively as cheap as the average rates of other countries, if not absolutely cheaper. The Western Union Company has had in operation for nearly four years a system of night messages at half rates, which provides a cheaper telegraph service for like average distances than exists in any other country. These messages may be filed at any time during the day, and are deliverable the next morning. Under this arrangement messages are sent from New York to Buffalo and Pittsburgh for 25 cents ; to Cleveland for 38 cents ; to Chicago and Cincinnati for 50 cents ; to St. Louis for 75 cents ; New Orleans and Mobile for \$1, and to all parts of Texas for \$1.25. The extent to which rates have been reduced in the United States within the last five years will be comprehended by comparing the above rates with the following, which were the rates charged before that time. New York to Buffalo and Pittsburgh, 75 cents ; Chicago, Milwaukee and St. Louis \$2.10 and \$2.25 ; New Orleans and Mobile, \$3.25 ; Galveston, and other points in Texas, \$4 and \$4.50 ; San Francisco and other places in California, \$7 and \$7.50 ; Oregon and Washington Territory, \$9. The half rate for night messages has not been applied to stations on the Pacific coast ; but, instead, \$2.50 has been fixed as the maximum rate between any two stations on the Western Union lines. These reductions are greater than those made in any other country during the same time.

In every European country, except Great Britain, the message comprises twenty words, all words being counted. In this country ten body words constitute a message—the date, address and signature being free—and the average of the free words to each message is considerably more than ten. *The present average tariff in the United States is fifty cents for a message of ten words, with date, address and signature free!* The purchasing power of fifty cents of our paper currency is scarcely greater

than that of one and a half francs on the Continent of Europe, and but little greater than that of the English shilling.

This is especially true when applied to labor, which is the chief item of expense in the telegraph business, not only in the United States but in all other countries. In nearly every European country it will be seen that the tariff for interior messages is less than half the average rate on international messages.

#### LOSSES FROM OPERATING THE TELEGRAPH IN OTHER COUNTRIES.

It further appears, by the tables appended to the Postmaster-General's report, that in 1872 the product of interior messages in Germany was 6,521,869 francs, and that there were disbursed for salaries 8,391,745 francs; yet, by omitting from the exhibit all expenditures for construction, Germany was enabled to show a profit of about 200,000 francs, derived from 1,500,000 international messages, which yielded over 5,000,000 francs.

France has a population nearly equal to that of the United States, and a very extensive and complete telegraph system. There were sent, in that country, in 1871, 4,371,952 interior messages, the product of which was 4,494,823 francs. There were expended for salaries in the same time 9,620,000 francs; and the total loss from operating the telegraph that year was 4,135,674 francs. Yet nearly one half of the French telegraph receipts for that year were derived from international and transit messages, but for which the loss would have been over 8,000,000 francs. In view of these results, it will not be deemed surprising that early in 1872 the French telegraph authorities advanced the rates 20 per cent. on one class of messages and 40 per cent. on another. The larger increase applied to the rates which yielded over 60 per cent. of the revenue of the previous year.

The result in Spain, in 1872, is still worse. The gross receipts are set down at 1,774,414 francs, and the expenses for salaries and maintenance 3,489,380 francs, of which about 3,000,000 were paid for salaries.

In neither of these countries did the gross receipts from interior messages amount to half the sum expended for salaries.

The telegraphic expenses of Austria in 1871 were about

800,000 francs in excess of receipts; Hungary, in 1872, 1,750,000 francs; Belgium 100,000 francs, Portugal 500,000 francs, The Netherlands 600,000 francs, Sweden 700,000 francs.

Russia shows a profit of over 4,000,000 francs, and appears by the tables to have received nearly 14,000,000 francs from 2,500,000 interior messages—being an average of about  $5\frac{1}{2}$  francs per message. Her receipts from 500,000 international messages were about 3,000,000 francs, being at the rate of nearly 6 francs each. In territorial extent, and the distribution of population, Russia compares with the United States more nearly than any other European country. It will be seen from these statements that the average charge for messages in that country is much greater than in the United States.

#### THE RESULT IN GREAT BRITAIN.

In the statistical tables appended to the Postmaster-General's report, the operation of the telegraph in Great Britain for the year 1872 exhibits an apparent profit of 2,600,000 francs. I say an *apparent* profit, because in the reports of the telegraphic operations in that country a large amount is carried annually to capital account, for disbursements which in other countries are charged to maintenance. The evidence is conclusive that the revenues from the British telegraphs, since the lines were taken over by the Government, have every year fallen considerably short of the actual working expenses. During the last year the expenditures on account of the telegraph have been made the subject of special Parliamentary investigation, which resulted in disclosing the fact that, besides applying all the receipts from the business, and a large appropriation by Parliament, there had been drawn from the deposits in the Postal Savings Banks, and expended upon the telegraph, over £800,000. These disclosures were followed by the resignation of the British Postmaster-General, Mr. Monsell. During the investigation, which was conducted by a Parliamentary Committee, inquiries were addressed to Frank Ives Scudamore, Esq., the Manager of the Post-office Telegraphs, as to the application of the appropriations and the Postal Savings Bank funds, and the results which he expected from their investment. In his reply, made in July last, in which the receipts and expenses for two years are esti-

mated, he states that at the close of the next fiscal year, ending March 31, 1875, it is his opinion that the capital account will stand debited with over £10,000,000, and that he will then have paid interest on the capital, from the average date of its investment, at the rate of three per cent. per annum. The British telegraph system is more extensive and more efficiently worked than any other Government telegraph in Europe. But, when the estimated £10,000,000 have been invested in it, it will not be equal in extent to that of the Western Union Company at the present time.

#### A STRIKING CONTRAST.

Contrast £10,000,000—equal to \$50,000,000, gold—with the Postmaster-General's estimate that the lines and property of the Western Union, and all other companies in the United States, can be reproduced for \$11,880,000!

Concerning the estimates of Mr. Scudamore, I venture to remark that the net profits of the business at the date he fixes will not enable the payment of three per cent., or even one per cent. upon the capital invested. Not that his efforts will in the meantime be relaxed, nor that anything will be omitted which would tend to increase the efficiency, or promote the economy of the service under his charge, but because, after three years' experience, in which all his original estimates have fallen far short of reality, he still underestimates the amount of his inevitable expenses, and overestimates the profits possible to be realized. In view of the fact, then, that the average tariff on interior messages in Europe is  $1\frac{1}{2}$  francs, and on international messages  $4\frac{1}{2}$  francs, it will be seen that the rates in this country, which the Postmaster-General denounces as "high charges," are, taken altogether, as low as the average rates in European countries where the telegraph is under Government control.

#### THE TELEGRAPH NOT A BENEVOLENT INSTITUTION.

It is strictly true that the chief object of the companies is to make profit for their stockholders. It is for that purpose alone that private parties have invested capital in the telegraph business; and there is no good reason why the investors in such property, and those to whom they have entrusted its manage-

ment, should be subjected to the invidious rhetoric of a cabinet officer, more than citizens engaged in other legitimate industries; neither should their efforts to make the business remunerative and the property valuable, by lawful means, be made the subject of official condemnation. The present telegraphic facilities are adequate to meet all the demands upon them. In no other country have telegraphic facilities increased so largely, during the last few years, as in the United States. This increase has not only kept pace with the public demand, but in many sections has anticipated it. While in other countries the cost of telegraphic extension, and in some of them a part of the cost of its operation, has been paid from the public treasury with moneys raised by taxation upon the people, in the United States the extensions have been made entirely by private capital, furnished by private citizens.

THE "FAST SYSTEM" SLOWER THAN THE MORSE.

The next notable statement in the report relates to what is therein styled the "Automatic or Fast System."\* It is certainly an unusual instance of good fortune when the owners of patents, who have been for years unsuccessful in their efforts to make a satisfactory sale, are enabled to secure so valuable an advertising medium as the Annual Report of a Postmaster-General. The inference to be drawn from the statements in the report concerning this wonderful "system" is that it is a budding novelty, just ready to burst into the full bloom of triumphant success. I would not blast its promise by even the breath of an unkind word. But a few plain and simple truths concerning it must be told.

*First.*—It is not a novelty. There lies beside me as I write a pamphlet, bearing date December 1, 1869, throughout whose twenty-two pages the praises of what it had then achieved are glowingly set forth.

*Second.*—It is not a success. Four years of constant trial, during which large sums have been expended in practical experiments, and in endeavoring, by new devices, to overcome constantly developed defects, have failed to demonstrate its

superiority over existing modes, or even its ability to compete successfully with them.

Automatic Telegraphy, as a separate system, has never been attempted in any country. It has been in use in England for several years, but only as an aid to the Morse system, or as a substitute for others greatly inferior to the Morse, and which either were never introduced into this country or were long since discarded. Its chief defects are: 1. More time is required to prepare a message for transmission by the Automatic than to send it by the Morse. By the latter the receiving operator writes out the message as fast as the sending operator transmits it, so that when the sending is finished the copying is completed, and the message ready for delivery

2. By the Automatic system the message is received in the dot and dashes of the Morse alphabet. More time is then required to translate and copy than is occupied in both sending and copying in the ordinary way. No matter, then, what the rate of speed at which the signals are made to pass over the wire—it takes as much time to prepare for transmission, and again a much time to translate and copy after the message is received as to transmit and copy by the Morse system—it is plain that twice as much time is consumed in respect to any single message by the Automatic process as by the ordinary Morse.

But there are other grave practical difficulties. The automatic apparatus, as compared with the Morse, is cumbersome, intricate and costly. It gets out of repair easily, and the cost of providing duplicates for use in case of accident, and of shipments over long distances for repairs, constitute a serious objection.

Again, it is evident that in the separate processes of preparing, transmitting, translating and copying by the automatic system, more operatives are required than in the regular Morse. The testimony of those connected with the Government telegraph in England is that it takes five times as many operators to successfully work the former process as the latter. The cost of operating is the chief expense of carrying on the telegraph business. It would be much cheaper to provide additional wires, and to apply the Duplex to them than to double the cost of operating; but if it be necessary to multiply this cost by five that fact alone constitutes a fatal objection.

DOUBLE TRANSMISSION ON ONE WIRE THE FASTEST SYSTEM  
KNOWN.

The Duplex Apparatus, the patents for which are owned by the Western Union Company, is capable of rendering much more valuable service than the Automatic, even if the graver defects of the latter are successfully overcome. The Duplex works equally well single or double, thus obviating the necessity for duplicating instruments. It doubles the capacity of a wire by enabling messages to be transmitted over it in opposite directions at the same time, without any perceptible diminution of speed. It does more than save the cost of providing and keeping in repair additional wires. It gives the carrying capacity of two wires when, by accidental interruptions, there is but one in working order, and when no amount of money previously invested in wires would have provided another.

Concerning the Autographic systems of Meyer and others it is sufficient to say that they are merely electrical toys, which excite interest by their results without serving any useful purpose. Their operations are too slow, the apparatus too expensive, and the occasions for its use, too limited to give them any value as parts of a practical system.

**EXTORTION!**

It is doubtless true, as stated in the report, that in the near future the entire methods and machinery of telegraphic communication will be cheapened; but, being true, why it should follow "that the Government will be compelled to assume their control in order to protect the people from *extortion*," does not clearly appear. "Extortion" is a word of severe import, and should not be lightly used. As here applied, without evidence to justify it, it will, when calmly considered by a discriminating public, recoil with more damaging effect upon the high official who hurls it than upon the private citizens at whom it is aimed.

The next statement in the report which seems to deserve notice is the following:

"There are now but two parties in the controversy over the postal telegraph—on one side the people, on the other the Western Union Telegraph Company."

This is followed by a lengthy extract from the last annual report of the President of that company, after which the Postmaster-General proceeds with the following "elegant extract:"

"The Western Union Company has always contended for high rates, and enforced them with a strong hand. When new associations have been formed *for the purpose of reducing rates*, the Western Union has at once entered the lists to destroy its rivals, and, in pursuit of victory, has not scrupled to use any device which the powerful can employ against the weak. *Failing to vanquish its adversary in the open field of fair competition, it has resorted to artifice, and triumphed by making gold its weapon.*"

The Postmaster-General concludes this indictment of the Western Union Company for high crimes and misdemeanors by saying of the Western Union report that it evinces

"A settled purpose to reduce rates only that it might exterminate competing companies already organized, or which it feared would be organized."

It was stated early in the report that the opposition to the postal telegraph came from the telegraph *companies* (in the plural) and those directly interested with them in sustaining their monopoly. Further reflection appears to have induced the Postmaster-General to modify this opinion—to suspend sentence upon all parties except the Western Union—and to concentrate upon that company and its officers the entire weight of his condemnation.

Reply has already been made to the claim that any considerable number of our people desire the postal telegraph.

The expenses of the Post-office Department are in excess of its receipts by six million dollars a year, not including interest on the millions which have been and are now being expended in the erection of buildings for the convenience of its operations. The telegraph may not always perform the business confided to it satisfactorily, but indications are not wanting in the report that the same is true of the Post-office. The former has been little if at all behind the latter in conforming to the public requirements. It is a notable fact that the principal complaint

of the inefficiency of the telegraph comes from a high official of the Government, who announces his purpose to bring its business, influence and patronage under the control of his department. In his efforts to that end he has encountered no denial of the right of the Government to take the property on the payment of its value, to be determined in the manner provided by law. He is mistaken, however, in assuming that the only opposition comes from the Western Union Company. What they oppose is not his right to control, although doubting its expediency, but they have protested and will continue to protest earnestly against misrepresentations, from whatever source, as to the value of their property, and unjust aspersions of the character of their managers. The charge that "they have always contended for high rates and enforced them with a strong hand" can be properly met with but one answer: It is not true. Telegraph rates in the United States are now but half what they were six years ago, and the majority of the reductions made by the Western Union Company have been made voluntarily, without compulsion, and for reasons and purposes alike lawful and honorable. In the rivalry with new associations they have made efforts to retain former customers and to secure new ones by endeavoring to do the business more promptly and satisfactorily than their competitors. In no case have they been the first to reduce rates upon competing routes. In fact, the report of the Postmaster-General admits this when speaking of associations "*formed for the purpose of reducing rates.*" Does he expect the Western Union to maintain higher rates than its "rivals," in order that the former and not the latter may be "destroyed?" We have repeatedly remonstrated against what we believed to be unreasonable reductions, but when compelled to reduce, by the action of our competitors, we have not always permitted them to dictate the rates. If our rivals have been vanquished it was either because they did not possess the facilities requisite for doing sufficient business to enable them to pay its expenses, or because the rates they insisted upon establishing proved to be unremunerative, or because they failed to conduct their business to the satisfaction of the public.

The charge that the Western Union Company "have not scrupled to use any device which the powerful can employ

against the weak, and failing in the open field of fair competition, have resorted to artifice, and have triumphed by making gold their weapon," is absolutely groundless, and if uttered by one less distinguished than the Postmaster-General, would deserve to be characterized as a ~~pompous~~ slander. If published by one private individual in respect to another, it would make its author liable to an action for damages.

It is true that we are ready to purchase telegraph lines required to meet the demands of a constantly increasing business whenever we can do so on terms that are deemed satisfactory. But there are always two parties to such transactions—the buyer and the seller—and neither can accomplish his purpose without the assent of the other. It has rarely happened in the purchase of telegraph lines that we could not have acquired them on better terms by waiting longer. But if the owners of private property desire to sell it, and parties can be found able and willing to buy, what has the Postmaster-General to do with the transaction, whether the buyer or the seller makes the better bargain? Who has addressed to him a complaint that the Western Union Company has obtained control of any property by dishonorable means?

#### ELEMENTARY AND RUDIMENTARY.

The report of the Postmaster-General proceeds to state some elementary truths.

" Nature furnishes an inexhaustible storehouse of electricity. The earth and the atmosphere constitute the never wearying media of its transmission \* \* \* \* \* As well might a charter be granted for the exclusive use of air, light or water; as well might a price be set on the winds and waves, or rivers flowing to the sea, the seed time and harvest, and on the power which causes the seeds to germinate and the fruits of the earth to grow, as to restrict for the sake of profit the use of electricity—that most subtle and universal of God's mysterious agents."

The Western Union Company is not in exclusive possession of all the electricity in the country, nor does it enjoy special

privileges in any State, except the right to use certain valuable patents which are protected by law. It has the right to acquire a monopoly of the telegraph business by serving the public better and cheaper than other parties are able or willing to serve it. But if it be true, as stated in the report, that its competitors have been "vanquished" by the reduction of rates, does not that fact destroy the chief support on which the postal telegraph scheme rests? If private companies cannot pay expenses at present rates, how is it expected that the Government can make a profit at still lower rates?

#### OFFICIAL INEFFICIENCY.

Has our Government, or that of any of the States, ever opened a turnpike, dug a canal, constructed a railroad, built a ship, erected a building, or managed any business more efficiently or economically than private parties would have done? Is it not an admitted fact that, as compared with private enterprise, all Government work is in a greater or less degree dilatory, wasteful and extravagant? And is it possible to produce a different result under an elective system? No civil service rules touching character and competency, however faithfully administered by men indebted for their own positions to personal and political favor, will ever be as successful in securing the fittest agents to have charge of intricate and delicate business operations as that instinct of self-interest which governs men in the conduct of their private affairs.

#### STATISTICS *versus* ESTIMATES.

The Postmaster-General next proceeds to give sundry financial items taken from the Western Union report. The figures which he presents show that of the net profits of the company, which amounted to \$20,312,618 during the last seven years, more than \$13,000,000 are represented by new property acquired during that time, and by assets now on hand. I refer to these statements only for the purpose of contrasting them with the estimate made by the Postmaster-General one year ago, and concerning the correctness of which he now expresses "full confidence," that the property of the Western Union and all the other telegraph companies in the United States could be reproduced

for \$11,880,000! The report which characterizes the Western Union figures as an "admirable exposition" proceeds to say:

"A CURIOUS PUBLIC."

"It is to be regretted that there had not been placed by the side of it, for the gratification of a *curious public*, an equally lucid statement of the amount of cash capital paid in by the stockholders of the Western Union Company, and of the companies out of which it has been compounded."

The Western Union report was written for the information of the stockholders of that company, and not "for the gratification of a curious public." If it had occurred to its author that a Government official would have the leisure and disposition to occupy himself with a criticism of its details, to be embodied in a public document, perhaps some pains would have been taken to supply material for the gratification of such eminent curiosity. This bit of dignified pleasantry is succeeded by the following

OFFICIAL PERSONALITIES.

"Elated, as he must have been, by a contemplation of the manner in which the net profits had swept away all opposition, present or prospective, President ORTON might well say, in the language quoted from his report, that 'the time is not distant when the Western Union Company will be without a substantial competitor in the conduct of a business which, notwithstanding the enormous growth of the last seven years, is still in its infancy.'"

This is followed by what purports to be an extract from the Western Union report, which its President did not write, which was not read at the annual meeting of stockholders, and the publication of which in a newspaper was unintentional. It did not appear in the official copy of the report in the *Journal of the Telegraph*, to which the Postmaster-General is a subscriber.

When a cabinet minister attacks a private citizen who sustains no relation—business or otherwise—to his department, and swaps

the dignity of an official report for an opportunity to excite ridicule, comment would be a waste of words.

The Postmaster-General concludes as follows :

SELL OUT OR BE CRUSHED OUT.

"The telegraph should be made a part of the postal system without further delay. As Congress does not seem inclined to exercise the discretion given in the third section of the act of July 24, 1866, to appoint appraisers to value the "lines, property and effects" of the companies now in operation, and as the Western Union Company appears to be unwilling to make a voluntary sale at a fair price, I recommend that provision be made by law for the immediate establishment of the postal telegraph, and for the construction of all such lines as may be needed, under the direction of competent officers of the Engineer Corps of the Army."

In his report one year ago, after urging Congress to inaugurate the postal telegraph by acquiring "the lines of some or all" of the present companies, the same official recommends: *First*—that instead of adopting the Hubbard or partnership scheme, the telegraph "should be put entirely into the hands of the Government." But, *second*, if it is decided that the public interest does not demand the postal telegraph, "then the Government should not favor one private company to the exclusion of another, nor should it in anywise enter into competition with private enterprise."

I shall not attempt to reconcile or explain the direct conflict between these two recommendations. The neglect of Congress to take action at the last session upon the recommendation made a year ago, is an indication that, in their opinion, the public interest does not require the postal telegraph. Therefore, there was no occasion to exercise the discretion given in the act of July 24, 1866, to appoint appraisers to value "the lines, property" and effects of the telegraph companies. There is no authority for the statement that the Western Union Company "appears to be unwilling to make a voluntary sale at a fair price." That Company has accepted the terms of the act of

1866, and will comply with those terms by selling their property to the Government whenever Congress gives notice of the desire to buy, and requests the appointment of "competent, disinterested persons" to assist in the valuation. The valuation, as fixed in the manner prescribed by that act, will be accepted by the company as "a fair price." No officer of the Government has been authorized to ask the company to name the price which they are willing to accept, nor has any such officer authority to purchase the company's property, however satisfactory the price might be at which they should offer to sell. It may be safely assumed that, under existing laws, the managers of the company will not be willing to make a private bargain with the Postmaster-General for the sale of their lines; nor do they believe that the country will ever be satisfied to inaugurate the postal telegraph in that way.

**TAXING CITIZENS TO PAY THE COST OF DESTROYING THEIR PROPERTY.**

There only remains to be considered the recommendation of the Postmaster-General, that Congress authorize the construction of lines required for the immediate establishment of the postal telegraph. Can it be that the Postmaster-General expected a proposition to be seriously considered which contemplates employing public moneys, collected from the people by taxation, to set up the Government in business as the competitor of private citizens! Coming from an executive officer of a Republican Government, whose powers are defined and limited by a constitution and laws, the proposal is simply monstrous. If there were no such prohibition in the Constitution, the common sense of an intelligent people would revolt at the suggestion that private property should be taken for public use without just compensation.\* But to use public moneys to destroy private property by Governmental competition, would be more unjust than to take it without compensation. In the latter case its owners would lose only its value, while in the former they would make the same loss, and, in addition thereto, be obliged to contribute in taxes their *pro rata* share of the cost of its destruction. The owners of tele-

\* Appendix A.

graph property, startled as they may well be at this most extraordinary proposal, need have no apprehension of its being carried into effect. The people of the United States are intelligent and just, and the Congress they have chosen, faithfully representing them, will require the Government to show the same respect for private property and private rights that the common law requires each citizen to show to every other.

I have the honor to be, sir,

Very respectfully,

Your obedient servant,

WILLIAM ORTON.



## APPENDIX A.

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The Postmaster-General proposes to destroy all telegraph property in the country by putting the United States in the field as a competitor, supported by the public Treasury.

When, if ever, this proposition is seriously considered by Congress, some grave questions will arise involving moral obligations of the Government to the citizen and the limitations of constitutional power.

It is not my purpose to suggest in any complete manner the nature of these questions as affecting either the power of the Government to deal with the subject of the telegraph at all (otherwise than has been already done), or, having such power, in exercising it to take or destroy private property without compensation or due process of law.

The judicial language in a few cases cited below, will suggest the light in which the project is likely to be received by the courts :

"It would be a very curious and unsatisfactory result if, in construing a provision of constitutional law, always understood to have been adopted for protection and security to the rights of the individual as against the government, and which has received the commendation of jurists, statesmen and commentators as placing the just principles of the common law on that subject beyond the power of ordinary legislation to change or control them, it shall be held that if the government refrains from the absolute conversion of real property to the uses of the public, it can destroy its value entirely, can inflict irreparable and permanent injury to any extent, can, in effect, subject it to total destruction without making any compensation, because, in the narrowest sense of that word, it is not *taken* for the public use. Such a construction would pervert the constitutional provision into a restriction upon the rights of the citizen, as those rights stood at the common law, instead of the government, and make it an authority for invasion of private right under the pretext of the public good, which had no warrant in the laws or practices of our ancestors."—(*Pumpelly v. Green Bay Company*, 13 *Wallace's Rep.*, pp. 177, 178.)

"Can the Legislature have power to do that indirectly which it cannot do directly? If it cannot take away or resume the franchise itself, can it take away its whole substance and value? If the law will create an implication that the Legislature shall not

resume its own grant, is it not equally as natural and as necessary, an implication that the Legislature shall not do any act directly to prejudice its own grant, or to destroy its value? If there were no authority in favor of so reasonable a doctrine, I would say, in the language of the late lamented Mr. Chief Justice Parker, in this very case: 'I ground it on the principles of our government and constitution, and on the immutable principles of justice: which ought to bind governments as well as people.'—(*Story, J., Charles River Bridge v. Warren Bridge et. al.*, 11 *Peters' Rep.*, 617.)\*

"If it had been proposed to pass an act for the sequestration of the toll of Charles River Bridge to an amount not exceeding sixty thousand dollars, to build a bridge for the use of the Commonwealth where the Warren Bridge has been built, it is not believed that any member of the Legislature would have voted for it. A sense of justice would have prevented the adoption of a measure so inequitable and oppressive upon its front. But what is the difference between a sequestration of the money actually in the plaintiff's treasury, and an act to prevent that amount from going into their treasury? I ask what difference is there in effect of the one and of the other upon the plaintiff's interest? The difference is in form only, not in substance."—(*Charles River Bridge v. Warren Bridge*, 7 *Pickering's Rep.*, p. 503.)

"When a law annihilates the value of property, and strips it of its attributes, by which alone it is distinguished as property, the owner is deprived of it according to the plainest interpretation, and certainly within the spirit of a constitutional provision intended expressly to shield private rights from the exercise of arbitrary power."—(*Wynehamer v. The People*, 3 *Kernan*, 398.)

"Even if, upon a fair construction of the grant, the power conferred is broad enough to protect the company against all the consequential injuries to private interests, and was so intended by the Legislature, it would be impossible to uphold it to this extent, where no provision has been made for full compensation. It would be in violation of the fundamental law of the land."—(*The People v. Gray*, 25 *Wendell's Rep.*, 464.)

"A proper construction of the word 'taken' makes it synonymous with seized, injured, destroyed, deprived of. It is, therefore, evident that the Legislature have no power to authorize, in any case, either a direct or consequential injury to private property without compensation to the owner."—(*Evansville Co. v. Dick*, 9 *Indiana*, 433.)

"In the extension of the national road through the State of

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\*Although Judge Story's opinion in this case was overruled by a bare majority of the Court, it was submitted to the State Legislature, and an act was subsequently passed by that body indemnifying the stockholders of the Bridge Company, the value of whose franchise had been thus indirectly destroyed under the forms of law.—(*Private Laws of Mass.*, vol. 8, A. D. 1841, ch. 88.)

a free bridge was thrown across a stream by the side of a bridge, which had some ten or fifteen years of its charter to

The new bridge did not in the least obstruct the passage of the old one ; and it was contended that as no exclusive right given under the first grant, the owner of the toll bridge was led to no compensation. It was said on that occasion, as it had been argued on this, that the right was given subject to the action of the Legislature, as to a subsequent grant ; and that new bridge could not be objected to by the first grantee, because it was built under the authority of the State or Federal Government.

This course of reasoning influenced a decision against the plaintiff in the first instance, but a reconsideration of his case, a more thorough investigation of it, induced the proper authority to reverse the decision and award an indemnity for the injury done. The value of the charter was estimated, and a just compensation was made. This, it is true, was not a judicial decision, but it was a decision of the high functionaries of the Government, and is entitled to respect. It was dictated by that sense of justice which should be felt on the bench and by every judicial having the power to act upon private rights.—(11 Peters' 568.)

## APPENDIX B.

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### THE AUTOMATIC TELEGRAPH.

After the letter to the Postmaster-General was put in type, I received information that a series of experiments in transmitting the President's Message had been made by the Automatic process, and that on one occasion these experiments had been conducted in the presence of the Postmaster-General and other eminent persons. It was represented that in the earlier experiments the time required to transmit the message between Washington and New York was thirty-four minutes, but that subsequently the transmission was accomplished in twenty-two minutes.

I will assume not only that these statements are correct, but will go further and admit, for the purpose of this illustration, that the transmission can be successfully made in telegraphic characters, plainly legible, in twenty minutes.

The President's Message, the Spanish Protocol, and a digest of the Treasury Report, aggregating 11,640 words, were transmitted by the Western Union Company from Washington to New York, on eight wires, and six copies taken, in an average of sixty minutes. But for a misunderstanding which resulted in a brief interruption of one of the wires, the transmission would have been completed in a few minutes less time. To work these eight wires required eight sending operators at Washington and eight receiving operators at New York. By the Western Union or Morse process the acts of sending and receiving are simultaneous; and when all the matter had been sent it was all received, written out and ready for delivery. But the Automatic system involves three separate and distinct processes:

*First.*—The message must be translated into telegraphic language, by perforations in strips of paper, which correspond to the dots and dashes of the Morse alphabet.

*Second.*—The perforated paper must be wound upon a reel and then made to pass rapidly under a steel comb, the teeth of which dropping through the perforations establish electrical connection with the receiving instrument at the other end of the circuit, where the electric current, acting upon chemically prepared paper, reproduces the dots and dashes.

*Third.*—The message, which is then in telegraphic characters, must be translated and copied.

The first requisite of the telegraph is speed, and no new process is entitled to consideration that will not perform ordinary telegraph work within the same time that it can be done by the process now in use. It will not do to say that the Western Union Company could do its work with a less number of wires if it had the Automatic, or that the Automatic can do the same work in longer time with fewer wires. The Western Union has the wires requisite to do all the work demanded, and the Automatic can not hope to compete successfully without doing its work with equal promptness.

The real question, then, in this case is, What does the Automatic process involve in order to enable it to deliver the President's Message complete in New York within sixty minutes of its receipt at Washington?

I have assumed that its transmission could be accomplished in twenty minutes. Then the perforation at one end and the translation and copying at the other must both be accomplished in forty minutes, and it will not be unfair to divide the time equally, and give twenty minutes to each. Now, one Morse operator will send in an hour as many words as one operative can perforate in the same time. I am confident the former can do twenty-five per cent. more than the latter. If it took eight operators one hour to send the message, allowing the same time to perforate it, it would require three times eight, equal to twenty-four, operators to perforate it in one third of an hour. Assuming that the transmission is accomplished without accident in twenty minutes, and that it is plainly legible, we have now consumed forty minutes, and the message is still a confused mass of paper tape, on which are telegraphic characters, and there remain twenty minutes in which to translate and copy. It can be readily demonstrated that an operator will not translate and copy from the paper tape more than half as fast as when receiving by sound. Assuming this to be true—and the only doubt I have is whether the copying capacity is not over estimated—it would take twice as many translators and copyists to perform the work in twenty minutes as it did perforators—that is, forty-eight. So then, it would require twenty-four perforators, forty-eight copyists, and at least three more to attend the transmitting and receiving instruments and the perforators, making a force of seventy-five to accomplish in an hour the work performed with sixteen operators on eight wires by the Western Union in the same time. I have before stated that it is the experience of those connected with the British Telegraph lines that five times as many operators are required to work the automatic process effectively as the Morse. Five times sixteen are eighty, or five more

than my estimate in this instance, which is probably too low by at least five.

Whatever else the Automatic may be able to do satisfactorily, it is very certain that it cannot handle press matter in the day time. It is immaterial whether it is more economical than other processes or not. The press of this country insist upon having the very latest news possible to be obtained up to the time of going to press, and they are willing to pay what it will cost to procure it by that process that will give it to them. But the automatic is not the most economical. It would be decidedly cheaper for the Western Union to provide and maintain seven additional wires between Washington and New York than to maintain such a force at both places as would render it possible to transmit and deliver by the automatic process 12,000 words within an hour from the time of filing, without interfering materially with other business passing between the same places at the same time. It has sometimes been said that less skilled, and therefore less expensive labor, could be employed in the automatic process than is required under the Morse system. But this is entirely fallacious. The skill and experience required to perforate and to translate and copy promptly and accurately will be certain to command as high wages as are paid for other telegraphic work.

Of every dollar received by the Western Union Company we are obliged to disburse about 70 cents to pay for the cost of getting it. About 40 cents of the 70 are paid for labor. To double the cost of the labor alone would change the proportion of expenses to receipts from 70 and 100, as at present, to 110 and 100. It is not necessary to pursue the computation further, but it will be easy to show what the result would be if the cost of labor was multiplied by five.

Announcement was recently made in the English papers of what was there considered an extraordinary telegraphic feat in the transmission to the press of an address by John Bright to his constituents at Birmingham. Extensive preparations to report and telegraph the address were made in advance of its delivery. A special staff was sent out from the London office to reinforce the regular staff at Birmingham, and the ordinary equipment was augmented by 12 Wheatstone's Automatic Transmitters and 36 perforating machines, 6 of which were of extra power, capable of producing 3 perforated copies at one operation. This gave an equivalent of 48 ordinary perforators. It appears that with this immense array of machines, operated by 60 clerks, the British telegraph was able to transmit the speech of Mr. Bright direct to 21 cities, and indirectly an abridged report to 6 other places. The address was made in the evening, and all that was required of the telegraph was to transmit and deliver it in time for publication in the morning papers. This would give an average of five to six hours. I have no information as to the number of clerks required to translate and copy at the stations where it was delivered, but, judging by

the number required to transmit, the copying force must have been very large.

The Western Union Company received the President's message at the Washington office December 2, at 1 o'clock P. M. As before stated, it was sent to New York on eight wires, and copies were dropped at Baltimore and Philadelphia. At New York six copies were taken, four for delivery to the press and two for use in re-transmission. From New York it was sent to Boston and dropped at all the intermediate cities which take regular press reports, and also West to Buffalo and Chicago, with drops at intermediate stations. From Philadelphia it was sent to Pittsburgh and West and South, with intermediate drops. From Chicago it was re-transmitted to San Francisco and other Western points. At the same time that it was being sent from Washington to New York, Washington was sending it South and Southwest, so that within three hours of its reception at the Washington station it had been transmitted to sixty other stations, and delivered to more than 100 newspapers scattered over an area of 2,000 miles in extent in one direction and 4,000 miles in another. No such telegraphic performance is possible by any system in any other country.

I do not wish to be understood as desiring to make disparaging comparisons, nor as questioning the efficiency of the British Telegraphs. They are most ably and efficiently managed. Money, energy and diligence have been bestowed upon them without stint. They possess certain decided advantages over the American Telegraphs. Their operations are conducted within a limited area and among a dense population. Material of all kinds costs a third less there than here, and labor less than half as much. It would not be surprising, therefore, if under these favorable conditions their performance excelled ours. Such, however, is not the fact. The American Telegraphs perform more work in the same time, and with less labor than those of any other country. The results of the following comparison between New York and London fairly represent the difference between all the other principal cities of the two countries.

At the Central Telegraph Station in London the working force consists of 1,243 persons, including the manager and his assistants, but exclusive of messengers. Counting repeated messages twice—that is, once when received and once when resent—the number of messages passing daily through that station is about 35,000—being an average of about 28 messages for each employé.

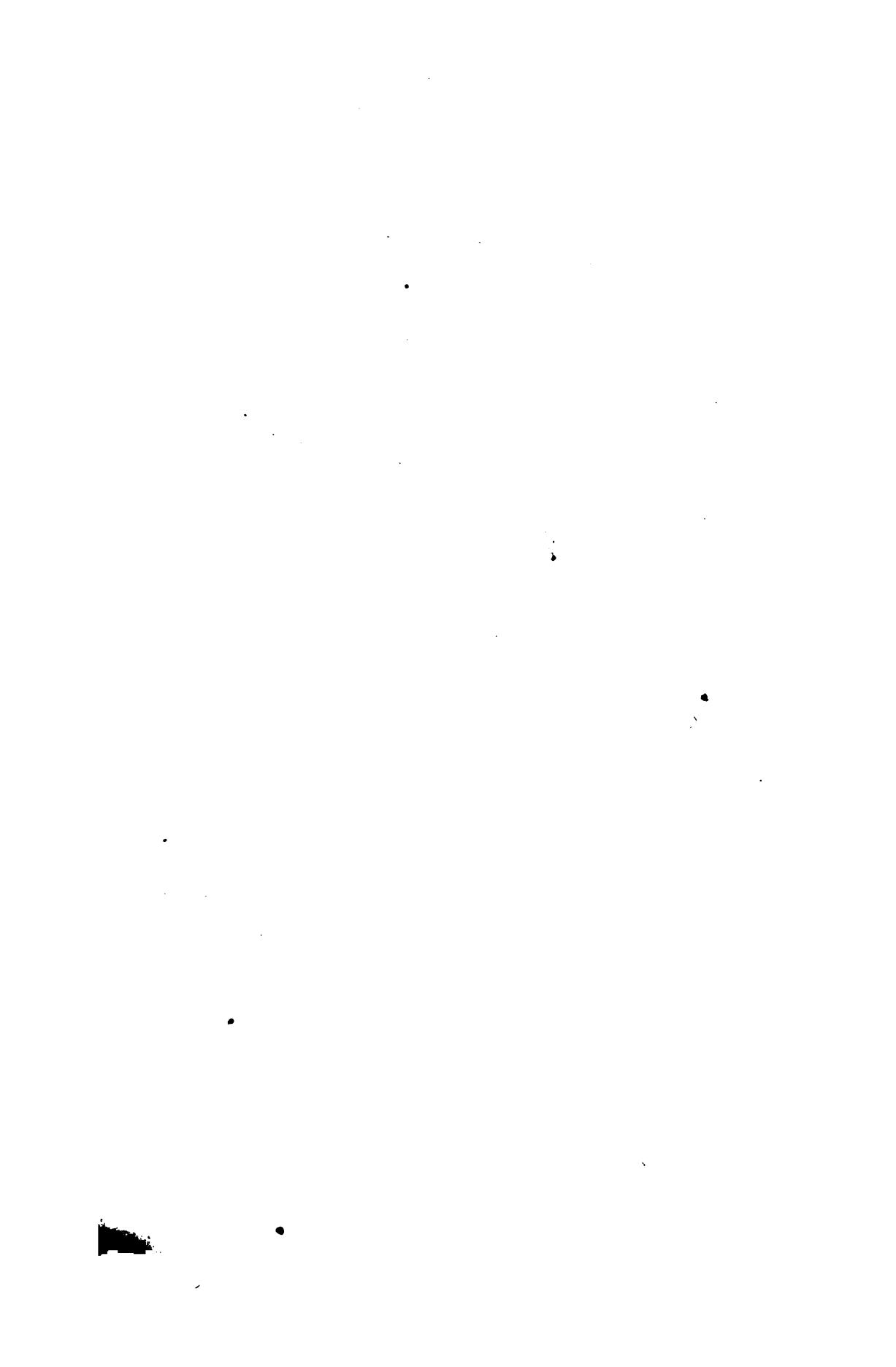
The working force of the Western Union Company's central office in New York is 234 persons, including the manager and assistants, but excluding messengers. The number of messages passing daily, counted as above, is about 25,000—being an average of 107 per day for each employé.

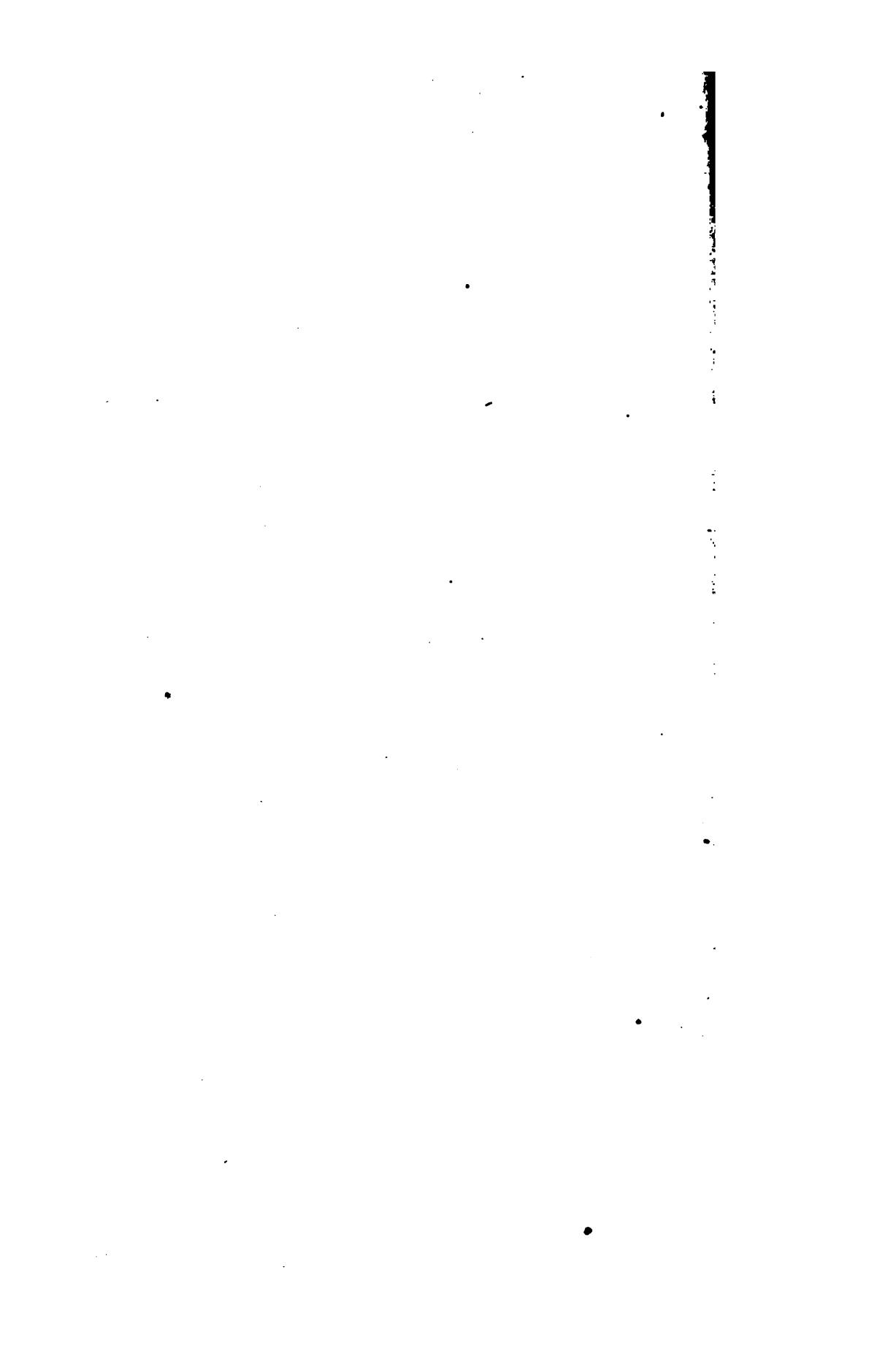
The annual compensation paid to male employés of the London office averages \$330 each, and to the female employés \$198 each. The average compensation paid to the male employés of the

Western Union Company at their central office in New York is \$913 per annum, and of the females \$512 per annum.

In view of the facts herein stated, it is not probable that the Automatic system will ever become a formidable rival of that employed with such satisfactory results by the telegraph companies in the United States.

W. O.









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